



**Bid Questions**  
**Robley Rex VAMC**

**Louisville, KY**

**Project No. 603-13-303**

**“Replace Air Handling Units, Phase 4”**

**Drawings**

1. General – There are no phasing drawings provided. Can it be assumed that all work can be accomplished within the Mechanical Equipment Room after the temporary units are placed in service?
2. Related question – If the response to the above is in the negative, will the VAMC be providing a sequence of phases to be accomplished?
3. General – Will the VAMC be removing and storing the tables located in the courtyard for the duration of this project?
4. General – Where will the project laydown, trailer and storage areas be located?
5. Life Safety – As there is no Life Safety Plan provided as part of the set, what will the requirements be in order to maintain the egress paths thru the project area? Signage required? Pathway protection? Barricade details? Fencing requirements?
6. Related question - As there is no Life Safety Plan provided as part of the set, where do the rated walls occur and what are the ratings types?
7. General – Will the rental of all temporary equipment (HVAC, generators, etc.) be reimbursed to the contractor as a daily expense?
8. General – As there are not Fire Protection drawings provided in the set, but there are Division 21 Specifications, what will the Fire Protection scope require?
9. Related question – If the response to the above is in the negative, what will be the contracted duration for which this equipment is to be provided?
10. General – The metal liner called for on Sheet A1.10 does not appear to have a specification section to which it is associated. Will the Specification section for this liner be provided?
11. Sheet A1.10 New work key note #7 states to install new access door. Is the slab cut / penetration to be include as part of the required demolition as it is not indicated on the demolition plan?
12. Sheet A1.10 New work key note #5 – Is there a section for the desired new masonry infill? Is insulation required? What is the interior finish to be?

13. Sheet A1.10 New work key note #9 states “see structural” yet there do not appear to be any details which apply to this note. Please clarify.
14. Related question – Will it be the contractor’s responsibility to remove these pads upon completion?
15. Related question – What will the requirements be to “restore” the area upon completion of the project?
16. Sheet A1.10 Demolition plan does not indicated removal of the portion of the canopy above. What are the limit of items to be removed? Roofing? Structural steel? Sheathing?
17. Related question – Will existing structural drawings of the canopy or additional structural details be provided of the canopy so as to provide information as to the extent of temporary and permanent modifications required to the canopy structure as part of the scope of this project?
18. Sheet A1.10 New work key note #12 – Is there a detail as how the 2 layers of 5/8” type X gypsum board are to be installed? Is this to be laminated over the existing wall conditions?
19. Sheet A1.10 New work key note #13 – Where does this occur?
20. Sheet A5.10 Do the new work key notes on Sheet A1.10 apply to this sheet as well?
21. Related question – If the question above is answered in the affirmative, key note #8 points to what appears to be a masonry wall, not a metal roof. Shall the metal roof extend to a higher point than indicated in the elevation?
22. Sheet A5.11 What are the desired details for flashings / joint between the new metal panel system and the existing masonry wall?
23. Sheet A5.11 Section #1 – Is there to be any lateral bracing at the locations where the new “steel masonry anchors” are to occur?
24. Related question – What is the specification for the “composite nail base insulating sheathing”?
25. Related question - Is it the intent to place the metal on the floor of the shaft?
26. Related question - If the answer above to the metal floor is in the affirmative, is the specification for G-80 galvanized metal in that location adequate for the need of this project?
27. Sheet A5.11 Detail #2 – Does the roof enclosure require any style of venting?
28. Related question – To what extent is the “replace brick” notation referring? A course? Several course?
29. Related question – Is a drip diverter or gutter required above the louver to prevent water from the roof entering the louver face?
30. Sheet A5.11 Detail #4 – Is the existing beam to be cut?
31. Related question - Are structural drawings of the canopy available?
32. Related question – What is the size of the “new steel channel” indicated?
33. Related question – Are there details on how the metal liner system is to attach to the existing masonry wall?
34. Related question – Steel lintels are shown, will structural details be provided for these lintels?
35. Sheet S1.01 Detail D – Are existing structural drawings for the basement floor framing available in order to determine the existing beam size to which the new work is to be attached?

36. Sheets ASB3 and ASB4 These sheets indicate pipe joints and elbow (in excess of 36) yet specification section 02 82 11 – 1.1.2 does not indicate any work beyond floor tile and white duct mastic. What is the actual count of piping elbow to be abated?
37. Related question – Is there an asbestos survey that was completed as part of this project which can be provided as part of this bid package?
38. Related question – Is it possible to perform any of the piping abatement as “glovebag” style removal and if so, will a specification be provided?
39. Sheet M6.01 The schedule for the temporary unit, note #2 states “Temp AHUs must satisfy existing space supply airflow rates (CFM), filtration and Temp/Humidification loads during the entire construction period.....based on ***field pre-construction testing and balancing*** efforts as specified.” In neither specification section 01 00 00 – 1.7 nor section 23 05 93 1.4 –G does it appear that this “pre-construction” TAB is specified. Will the VAMC be providing this “pre-construction” TAB?
40. Related question – To what extent will the TAB be performed? (total airflow only? full to the final air device?)
41. Related question – If the answer to the above question is in the negative, will the contractor be required to perform this “pre-construction” TAB?
42. Sheet ED1.01 Note #5 – What are the requirements for these feeders to the temporary equipment? Conduit? Cables?
43. Related question – Note #5 refers to E6.02 which does not exist in the drawing set. Should the actual reference be E6.01 Notes 1.1 thru 1.4?
44. Related question – If the response to the above is in the affirmative, Who determines or approves the final location for the “potential” power source of the temporary units?
45. As the temporary units require 225A, 480V feeders, will the following information as it pertains to each “potential” source be provided:
  - i. Rental Generator
    - a. Is the contractor to provide and pay for the rental generator?
    - b. Is there a specification as to the type of rental generator?
    - c. Is the contractor responsible for providing and paying for the fuel for the rental generator?
  - ii. 480V substation in Room A-001
    - a. Are there spare switches available which are not indicated in the single line diagrams from which the (2) 225A loads could be serviced?
  - iii. 480V Panel NHGA in Room D-002a
    - a. Is Panel NHGA of adequate size and are there spare switches (as there is no information in these drawings regarding this panel) from which the (2) 225A loads could be serviced?
  - iv. 208V Substation in Electrical Sub-basement
    - a. Are there spare switches available (as there is no information in these drawings regarding this panel) from which the (2) 225A loads could be serviced?
    - b. Where would the step-up transformers potentially be located in relation to the equipment or substation?

46. Sheet ED6.01 and E6.01 These sheet indicate SB-1 as a 208V, 400A bus and it feeds MCC E1 which is 480V. SB-1 should be 480V, 1600A bus correct?
47. Sheet E6.03 Panel LBA is shown as 208V, 300A but is not found on the single line diagrams of ED6.01, ED6.02 or E6.01. Where is it actually feed from?
48. Sheet MD1.01 What will the requirements be in order to maintain the egress paths thru the project area? Signage required? Pathway protection? Barricade details? Fencing requirements?
49. Sheet MD1.01 General note #1 – Shall the TAB be required for ONLY the total airflow quantities to these areas?
50. Sheet MD1.01 General note #2 – How is this achieved if only the total airflow quantities are reviewed in the TAB above?
51. Related question – How will this requirement to be documented as an ongoing process during construction? What will be the reporting requirements as such?
52. Sheet MD1.01 General note #3 – What are these “phases” of this project to which this note refers (as there are no phasing plans)?
53. Sheet MD1.01 General note #4 – What portion(s) of this work can the Contractor assume to require “after hours” work in order to provide pricing parameters?
54. Sheet MD1.01 Key note #1 – As part of the documentation/verification of field conditions, can the VAMC or A/E provide an estimated size of this existing line for basis of pricing?
55. Sheet MD1.01 Key note #4 – Is the A/E to provide details regarding the temporary openings regarding existing conditions, temporary support measures or temporary weather enclosures required?
56. Sheet MD1.01 Key notes #5 & #6 – Are these notes intended to define a partial phasing plan for the work?
57. Related question – If the response to the above is in the affirmative, will the A/E provide additional information as how these activities are to be phased with the remaining “non-HVAC” activities?
58. Sheet MD1.02 Key note #1 – What are the size of the steam lines to be removed by this notation (As part of the documentation/verification of field conditions, can the VAMC or A/E provide an estimated size of this existing line for basis of pricing?)
59. Related question – Do valves exist in order isolate this piping being removed or shall the Contractor price new valves?
60. Sheet MD1.02 Key not #2 - Do valves exist in order isolate this piping being removed or shall the Contractor price new valves?
61. Sheet MD1.02 Key note #3 - What are the size of the steam lines to be removed by this notation (As part of the documentation/verification of field conditions, can the VAMC or A/E provide an estimated size of this existing line for basis of pricing?)
62. Sheet MD1.02 Key notes #5, #6 & #7 - Are these notes intended to define a partial phasing plan for the work?
63. Related question – If the response to the above is in the affirmative, will the A/E provide additional information as how these activities are to be phased with the remaining “non-HVAC” activities?
64. Sheet MH1.01 Is there a legend that denotes which walls are rated and what the dark, wide dashed lines are supposed to indicate?

65. Sheet MH1.01 General note #2 “Note:” regarding building pressurization requirements – When no sequence is identified on M8.01 at achieve such a “building pressurization”, will this requirement be therefore waived?
66. Related question – If the response for the item above is in the negative, will the A/E be providing a sequence for the said requirement?
67. Sheet MH1.01 General note #3 - What portion(s) of this new work can the Contractor assume to require “after hours” work in order to provide pricing parameters?
68. Sheet MH1.01 Key note #2 – This note conflicts directly with A5.11, Detail #5 calling for G-80 galvanized metal. Which takes precedence?
69. Sheet MH1.01 What sizes are the GWHS & GWHR lines to be?
70. Sheet MH1.01 What size is the LPS line tie-in shown to service the 3” and 2” LPS lines to be?
71. Sheet M3.01 Key Note #2 - This note conflicts directly with A5.11, Detail #5 calling for G-80 galvanized metal. Which takes precedence?
72. Sheet M5.01 Detail #5 – Where does this occur?
73. Sheet M5.02 Detail #2 – Where does this occur?
74. Sheet M5.02 Detail #5 – Where does this occur?
75. Sheet M5.02 Detail #6 – Where does this occur?
76. Sheet M5.02 Detail #7 – Where does this occur?
77. Sheet M5.02 Detail #8 – Where does this occur?
78. Sheet M5.02 Detail #9 - This conflicts directly with S1.01. Which takes precedence?
79. Sheet M5.03 Detail #2 – Where does this occur?
80. Sheet M5.04 Detail #11 – Where does this occur?
81. Sheet M5.05 Detail #6 – Where does this occur?
82. Sheet M5.05 Detail #7 – Where does this occur?
83. Sheet M5.05 Detail #8 – Where does this occur?
84. Sheet M6.01 “Special Air Filter / Purification System” – This far exceeds any requirement by the VA Design Manual - **3.2.2.13 Filtration.**

(b) Filter Efficiency: Filter efficiencies shall comply with ASHRAE Standard 52.2 – 2007, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size. All filter efficiencies are expressed as Minimum Efficiency Reporting Value (MERV) numbers.

Designation	Location	MERV	Thickness
Pre-Filter (PF-1)	Upstream of All Coils and Supply Air Fan	7	2-inch Thick Throwaway
Pre-Filter (PF-2)	Downstream of PF-1	11	6-inch Thick Rigid Cartridge
Alternate Pre-Filter (PF-2)	Downstream of PF-1	13	6-inch Thick Rigid Cartridge
After-Filter (AF)	Downstream of Cooling Coil and Supply Air Fan	14	12-inch Thick Rigid Cartridge
Final-Filter	Downstream of Air Terminal Unit	17	99.97% @ 0.3 Microns (HEPA)

**Notes:**

- (1) PF-1 and PF-2 shall be located back-to-back.
- (2) All AHU mounted filters shall be nominal 24 in x 24 in [650 mm x 650 mm] size.

Will the basis of design be modified to include only filtration requirements of the VA Design Guidelines?

85. Sheet M6.01 In lieu of the DX temporary units, would the VAMC allow substitution of a single chilled water and steam AHU?
86. Sheet M7.01 Diagram #3 – It is the intent of this diagram to indicated “dual” heat exchangers, each with the 1/3. 2/3 steam valve arrangement correct? (Key note #3)
87. Sheet M7.01 Diagram #4 – Where is this work shown to occur?
88. Sheet M7.01 Diagram #4 – Where is a sequence, points list or any other DDC control shown for this item?
89. Sheet M8.01 “Additional Control Points” – Will the VAMC or A/E be defining the final location of these “30 allowance” points of control or a sequence for which these points may be controlled?
90. Sheet M8.01 No sequence is identified to achieve a “building pressurization”, will this requirement be therefore waived?
91. Sheet M8.03 Detail #1 – As these are specified as packaged equipment, will the fan control points be required?
92. Sheet M8.03 Detail #2 – Where does this occur?
93. Sheet M8.03 Detail #3 – Where does this occur and how many locations?
94. Sheet PL1.01 Floor drain located within the outside air plenum – Should this have an extended (deep) trap and a trap primer?
95. Sheet PL1.01 How are each new floor drain to be vented?
96. Sheet PL1.01 As an existing “Fire Department Connection” is shown on the plumbing sheet, can it be assumed that a licensed Fire Protection Contractor is NOT required?
97. Sheet PL1.01 The notation “Existing dual backflow preventors to be removed / relocated” is confusing. Which is true? Remove or Relocate? If not relocated, then is the contractor to price to provide new?
98. Related question – What will be involved to shutdown, re-activate and sanitize these lines?

## **Specifications**

1. General – Is there a specification for the lighting fixture to be used?
2. General – Is there a specification for disconnect and safety switches?
3. General – Are there any specifications for new switches in the existing electrical distribution equipment?
4. Section 00 01 15 Sheet A5.10 is not indicated but is part of the set of drawings issued.
5. Section 00 01 15 Sheet E6.02 is not included in the set of drawings issued.
6. Section 00 01 15 Sheet A6.03 is not indicated but is part of the set of drawings issued.
7. Section 01 00 00 1.3 B – The statement of this Item is confusing. Is the intent to have this Item to be an deductive bid alternate such that the full scope is to be included in Item A and that Item B is the full scope less the scope outlined in Item B?
8. Section 01 00 00 1.7 A – As part of the survey, shall a pre-construction test and balance (TAB) be required to be performed?
9. Related question – If the response above is to the affirmative, to what extent will the TAB be performed (total airflow only? full to the final air device?)
10. Related question – If the response is to the negative, will the VAMC be conducting a pre-construction TAB to provide the contractor a baseline prior to the project NTP?

11. Section 01 45 29 Would the VAMC please enumerate the number and type of tests to be performed?
12. Related question – If the response above is in the negative, shall this section be ignored as no tests are enumerated and no testing will be required?
13. Section 01 58 16 3.1 C – No rooms are identified on the plans. Does this section apply?
14. Related question – If the response above is in the affirmative, what rooms require new signage?
15. Section 02 83 33.13 Where would this occur? There is no indication on the drawings as to neither scope area which this section may apply nor areas which contain such hazards.
16. Section 05 50 00 As the existing floor hatch is to be reused and no steel lintels are indicated, are there any requirements to this section that apply to this project?
17. Section 07 41 13 2.1 A 1 a thru d – States to match existing. What specific finish in this location is the existing system to be matched?
18. Section 07 42 13 2.1 B 1 Specifies “Paint Finish Characteristics as Gloss – Match existing” as the surrounding areas appear to be aluminum with a natural or satin finish, is this specification correct?
19. Section 07 42 13 2.1 C Panel assembly items 1 & 2 indicate width and length “As indicated on drawings”. Please provide the drawing or detail where this is shown.
20. Section 07 42 13 2.1 C 7 Panel assembly items 7a states “match existing lock zinc-alloy siding”. Is there a basis of design for the “existing” system? The same comment applies to items 7c and 7d of this section.
21. Section 07 53 23 What portion of this project does this specification apply and to what extent is the scope of work (as there is no roof plan in the set)?
22. Section 07 72 00 2.2 and 2.3 - What portion of this project does this specification apply and to what extent is the scope of work (as there is no roof plan in the set)?
23. Section 07 84 00 Neither a Life Safety Plan nor a designation as to location of fire or smoke walls is part of the set. Does this section apply?
24. Section 08 11 13 The drawings do not include a door schedule, what are the required labeling and ratings for the doors indicated as new?
25. Section 08 11 13 The drawings do not include a door frame schedule, what are the required labeling, ratings (section 2.3 A 3 c apply?) for the doors indicated as new?
26. Section 08 71 00 The Hardware Schedule in this section is “HW-E3” is listed for an “Exterior Single Door”. Will a update schedule for the exterior double doors shown in the plans be issued?
27. Section 08 90 00 1.2 C – Please confirm that louver with lead lining are not be include as part of this project scope and this section may be ignored.
28. Sections 21 05 11 and 21 13 13 There are no fire protection drawings in this set. Are these sections applicable? What is the scope of the Fire Protection work?
29. Section 22 05 11 3.1 M – Are any of the scope areas of this project associated with “Animal Research Areas”?
30. Section 22 05 23 PL1.01 notes “Existing dual backflow preventors to be removed / relocated” is confusing. Which is true? Remove or Relocate? If not relocated, then is the contractor to price to provide new? If the existing is to be relocated, does this section become obsolete?

31. Section 22 07 11      3.3 A notates that “Domestic Hot Water” insulation in the schedule. As PL1.01 does not indicate Domestic Hot Water as part of the scope in the drawing, please indicate where Domestic Hot Water scope falls within the project.
32. Section 22 11 00      3.3 Please provide details as to making provisions for the required AWWA C651 sterilization of the new work being installed. Additionally, will the VAMC be requiring specific documentation as to the “PROCEDURE FOR RETURNING WATER DISTRIBUTION SYSTEM TO SERVICE AFTER WATER INTERRUPTIONS AND PLUMBING UPGRADES” ?
33. Section 22 13 00      Should there be a specification for trap primers?
34. Section 22 14 00      There is no Storm Drain scope of work indicated on PL1.01. Is this section required and if so, what is the required scope of work?
35. Section 23 05 11      2.9 Neither a Life Safety Plan nor a designation as to location of fire or smoke walls is part of the set. Does this paragraph apply?
36. Section 23 05 11      2.13 B Neither a Life Safety Plan nor a designation as to location of fire or smoke walls is part of the set. Does this paragraph apply?
37. Section 23 05 11      2.17 A Roof Plan is NOT part of the set. Does this paragraph apply?
38. Section 23 05 11      3.1 J is in conflict with the 4,500 psi concrete specified in 03 30 53. Which section will apply?
39. Section 23 05 11      3.1 N – Are any of the scope areas of this project associated with “Animal Research Areas”?
40. Section 23 05 41      1.3 B 1 Are any of these areas within the scope of the project? Does this specification section apply?
41. Section 23 05 41      1.3 B 2 states “the contractor shall select equipment” when lack of sound power ratings are not scheduled. Will this be acceptable for this project in regards to the section of the AHU?
42. Section 23 05 93      1.4 G - To what extent will the TAB be performed for these components? (total airflow only? full to the final air device?)
43. Section 23 07 11      The insulation schedule 3.4 is only for piping and only indicates Mineral Fiber and Cellular Glass Closed Cell. Do paragraphs 2.2, 2.3, 2.5, 2.6, and 2.8 apply to this project? Obviously paragraph 2.7 should not apply to this project. Likewise, the corresponding paragraphs in section 3, do they apply?
44. Section 23 07 11      The insulation schedule 3.4 is only for piping. What are the specified materials to be for duct?
45. Section 23 09 23      The basis of design of the existing system is stated to be Schneider Electric’s StruxureWare. Is there are vendor that most frequently services these controls or is used on installation of new projects?
46. Section 23 09 23      2.1 - Basis of Design Manufacturer: Schneider Electric. BASIS OF DESIGN INDICATED FOR REFERENCE OF QUALITY AND PERFORMANCE. SUBMIT EQUIVALENT PRODUCTS AND MANUFACTURERS (JOHNSON CONTROLS, SIEMENS) FOR REVIEW AS REQUIRED BY SPECIFICATIONS. What is the intent of this comment? Is this comment for the bidding contractor?
47. Section 23 09 23      2.4 defines an ECC and all of it’s requirements. Is an ECC part of this scope of work?
48. Section 23 09 23      2.5 defines a POT and all of it’s requirements. Is a POT part of this scope of work?



49. Section 23 09 23 2.6 defines a BACnet Protocol Analyzer and all of it's requirements. Is a BACnet Protocol Analyzer part of this scope of work?
50. Section 23 09 23 2.10 Are any Special Controllers required as part of this project?
51. Section 23 74 43 This specification is for a "Custom" Indoor Central Station Air Handling Unit. As this section is in essence the same as section 23 73 00 which the VAMC TIL defines for Indoor Central Station Air Handling Unit, would a modular style unit meeting the TIL 23 73 00 parameters be acceptable?
52. Related question – If the response to the above question be in the negative, what are the critical components of the AHU which make it "custom" that required by the specification?
53. Related question – As the basis of design for this specification listed on Sheet M6.01(Scott Springfield Mfgr – Calgary, Alberta Canada) most likely will NOT meet the Buy American provisions of the solicitation, will another basis of design be provided?
54. Related question – If the response to the above is in the negative,
55. Related question – Is the EAS listed on the drawings the same as the EAS located in Greensboro, NC that is listed as a "EAS is a full-service mechanical contractor and custom-built HVAC equipment manufacturer"?
56. Related question – As Governair is the only company listed on Sheet M6.01 which has local representation, will other manufacturers which are not listed on M6.01 meet the specification be acceptable?
57. Related question – Will value engineering be accepted on the selection, style and manufacturer of this unit if all of the performance factor are met?
58. Section 26 05 19 Is there a specification for a desired cable for the temporary units?